

THE NEW WHALE FISHERIES.¹

IN the story of the rise and fall of the whale fisheries history has many times repeated herself. The Basque fishery, the oldest of all, the fragmentary records of which go back beyond the middle ages, which extended centuries ago to the other side of the Atlantic, which long furnished harpooners to our own fleet, and which has left us the harpoon and its name, finally passed away during last century with a practical extinction of the object of its pursuit. Our own Greenland, or right whale, fishery, in which for one hundred years some 250 vessels were employed, hailing from almost every east coast port, has been now for nearly another century on the decline, and some half dozen whalers from Dundee are all that is left of the once great argosy. A few fine old American ships, with dark-skinned harpooners from the Cape Verdes, still chase the sperm whale throughout its world-wide habitat, in place of the 700 sail that followed the business sixty years ago. Zörgdräger, Scoresby, Scammon, and a host of lesser men have left us records of these old fisheries, of the methods employed, and of the marvellous success achieved; but, nevertheless, the naturalist has much to regret in the passing away of these great industries, in the near approach to extermination of the most valuable and most interesting species, and in the scantiness of the material that has as yet been saved. Our chief museum contains, I believe, neither skeleton nor even skull of the Greenland whale, and the difficulties in the way of procuring one now-a-days seem to be very great indeed. We have to go to Stockholm or St. Petersburg to see the entire skeleton of such a whale, with the huge fringes of whale-bone still in place in the jaws. Nor, by the way, would our knowledge seem to be more adequate than our anatomical material, for a writer in a standard text-book told us only the other day that a single whale may yield us "several tons" of whale-bone!

While the fisheries before mentioned, and others like to them, are passing or have passed away, a new fishery has sprung up that has for the object of its pursuit a class of whales that formerly had been left in peace. This is the fishery for the great rorquals, or finner whales, first instituted by Captain Svend Foyn at Vadsö in 1864. The fishery is carried on by means of small steamers, carrying at their bows a harpoon gun which discharges a line and explosive bullet. The steamer tows the fish home, to be flensed and worked up in the factory ashore. Twenty years after Svend Foyn's small beginning there were more than thirty such factories on the coasts of Finmark, but all of these have very recently been disestablished by the Norwegian Government, which, in deference to temporary and local prejudice, is robbing its country of a profitable and ill-spared industry. The great success and profit of this fishery has led to its extension to Iceland, Færøe, Newfoundland, and lastly, to Shetland and the Hebrides; but it is still almost wholly in Norwegian

hands, and a factory at Tonsberg enjoys a practical monopoly of the machinery employed.

One consequence of the growth of this new industry has been to impress upon us, or to remind us of, the fact that at least certain species of whales exist in their native seas in prodigious numbers, seldom though the occasional traveller has the luck to see them. Once, in the North Pacific, on a calm summer's day, I saw for an hour the ship surrounded on every side by great whales to the number of many hundreds, and a somewhat similar display is said to have been witnessed to the north of Shetland during the past summer. Dr. Hjort calculates that from the beginning until 1901 the finner whale fishery resulted in the capture of some 27,000 fish, a vast number in itself, though not great in comparison to the yield of the Arctic fishery in its palmy days, for the Dutch alone are reckoned to have taken no less than about 575,900 Greenland whales and "Nordkapers" or Biscayan whales, between 1669 and 1778. Probably long lived, but certainly slow breeding, the whale must in the end give way before a wholesale persecu-

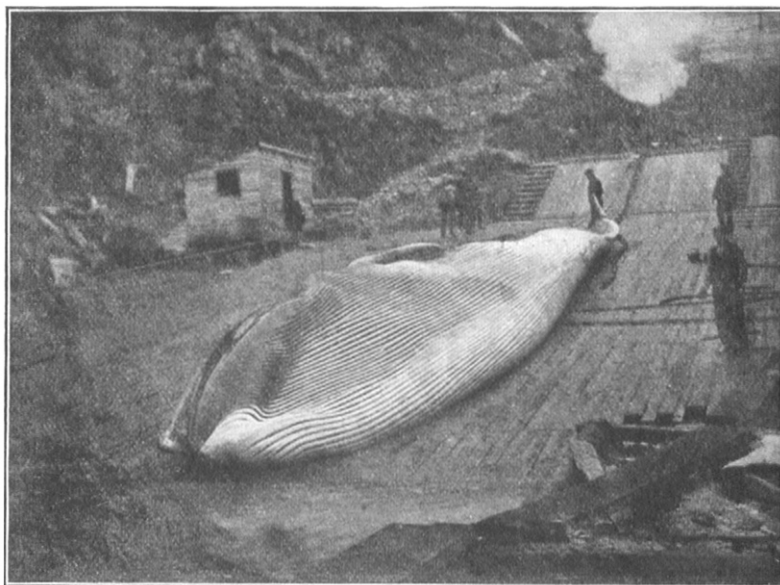


FIG. 1.—The Common Rorqual, Snook's Arm, Newfoundland.

tion; but meanwhile several species are still immensely numerous, and the naturalist has at least the consolation that pursuit tends to cease as scarcity becomes manifest, and long before actual extermination is achieved.

The new industry has many attractions and opportunities for the naturalist. The stations are in many cases within reach of easy travel, and the manner in which the carcasses are drawn up for flensing on the shore affords a perfect spectacle of the entire creature. The volume which has suggested the present article, by Dr. F. W. True, of the U.S. National Museum, is the outcome of a careful use of the opportunities afforded by the Newfoundland whaling stations, supplemented by abundant use of literature and study in American museums. Dr. True, who is already well known as a student of the Cetacea, seems to have made it his first object to investigate the specific characters of the larger whales, with the exception of the Greenland whale, and to determine, once for all, whether specimens of the various forms from the two sides of the Atlantic be specifically identical.

¹ "The Whalebone Whales of the Western North Atlantic." By Frederick W. True. (Smithsonian Contributions to Knowledge.) Pp. iv+332, and plates. (Washington: Smithsonian Institution, 1904.)

This question is answered, in general, in the affirmative, with some reservation as to the possible existence of varietal or subspecific differences in the case of the humpback, Megaptera, and the lesser piked whale, *Balaenoptera rostrata*, or *acutorostrata*, as our author, following Lacépède, prefers to call it. Furthermore, additional evidence is adduced in support of the identity of the North Pacific species with those of the North Atlantic. This conclusion is entirely confirmatory of the views of European naturalists, and Dr. True's remarks on the distribution of the various forms deserve to be read in connection with Dr. Guldberg's recent very interesting papers on the probable course of the annual migrations of several species around the circuit of the North Atlantic.

But Dr. True has given us other things besides a careful account of specific characters. He has given us, in the first place, a singularly interesting epitome of the early history of whaling in America, downwards from the mythical days of the Saga of Thorfinn. It will be news to the citizens of New York that, in the seventeenth and eighteenth centuries, there was a not

Norwegians, which seems to be rare on the other side of the Atlantic, but which in certain years has bulked very largely in the Finmark catch; lastly, the humpback, Megaptera. Besides these a sperm whale is caught every now and then, and the Icelanders still take an occasional Nordkaper, or Biscayan whale. Thus the "finner" industry furnishes not only a large number of individuals, but a great variety of species to the observation of the naturalist. Several curious points crop up in regard to the relative commercial value of the several forms. Thus, for instance, Rudolphi's whale, a species very similar to the common rorqual, long overlooked and afterwards considered very rare by naturalists, is now a most valuable element in the fishery, its whale-bone, though no bigger and longer than that of the common species, being worth, from its intrinsic quality, just about ten times as much.

Dr. True's photographs show us, with a wealth of illustration, Sibbald's whale, the common rorqual, the humpback, and the Nordkaper as they lie upon the beach. Many interesting points are excellently well shown—the distribution of colour, the curious pleat-

ings of the ventral skin, the contrast in form between the long, slender, lanky Sibbald's whale and the shorter, stouter body of the common species, the tubercles on the head of Megaptera, the huge flippers with their garniture of barnacles in the same species.

It is a common practice of American naturalists, and Dr. True is no exception, to deal somewhat harshly with received nomenclature in the quest after "priority." Rightly or wrongly, the common rorqual is invariably known to us as *B. musculus*, but that name is here transferred to what we call *B. sibbaldii*; the former is here designated *B. physalus*, L., and *B. biscayensis* figures as *B. glacialis*, Bonnatte. The work as a whole does not lend itself to epitomisation, and the foregoing brief account does not do justice to its scientific interest.

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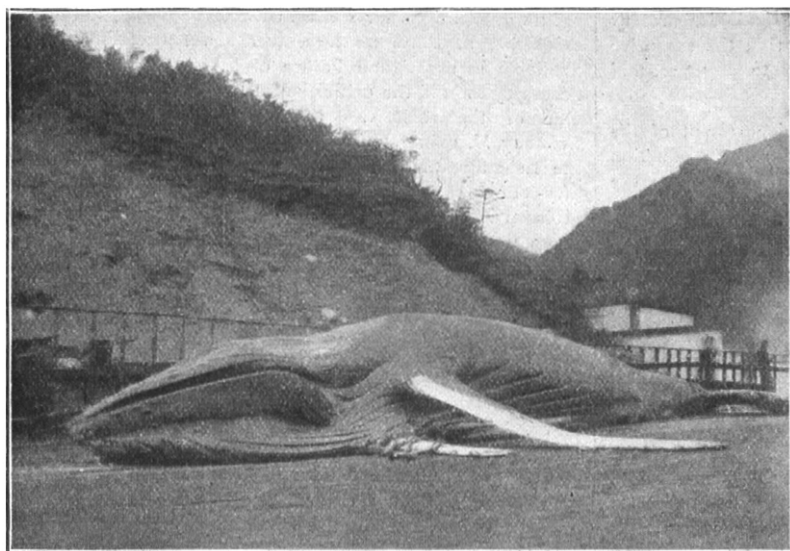


FIG. 2.—The Humpback, Balena Station, Newfoundland.

unimportant whale fishery on Long Island and in Delaware Bay, and that so late as 1823 (?) there was a family on Long Beach, N.J., who every winter sought for and "sometimes captured" whales, in which business they had been engaged, father and sons, ever since the Revolution. In the next place, and of still more popular interest, Dr. True has enriched his book with fifty large plates, for the most part taken directly from photographs, of whales as they lay on the beach at the Newfoundland factories. A few similar photographs have recently appeared from Norwegian and Scottish sources, but no such excellent and comprehensive series as Dr. True's has yet been made, though, by the way, one series of *B. musculus*, published about twenty years ago by M. Yves Delage, could scarcely be surpassed.

Five or six species of whales are obtained, more or less abundantly, at the various whaling stations. These are the great "sulphur-bottom," or Sibbald's rorqual, the blue whale of the Norwegians, which, rare on our own coasts, is the chief source of profit to the Icelandic and Newfoundland whalers; secondly, the common rorqual; thirdly, Rudolphi's rorqual, the Seiival of the

NOTES.

THE directors of the Ben Nevis Observatories, which were closed on October 1, have just issued a circular describing the circumstances in which these observatories have at last been discontinued. The maintenance of the two stations at Fort William and on the summit of Ben Nevis has involved an average yearly expenditure of 1000*l.* Of this sum, 350*l.* has been supplied by the Meteorological Council, and the remainder has been obtained from various private sources. It was hoped that the Treasury Committee which was appointed to consider the question of the annual grant to the Meteorological Council would deal adequately with the position of the Ben Nevis Observatories in its report, but in their circular the directors express disappointment that this was not done. The directors remark:—"Some of their number, including the two secretaries, were examined, and fully stated their case, besides handing in detailed memoranda regarding the history, work, and cost of maintenance of the observatories. Yet, with all this information before them, the committee state in their report that 'it appears that only 350*l.* per annum is required